

Notice of Allowability

Application No.

10/088,724

Examiner

Olga N. Chernyshev

Applicant(s)

NISHIMOTO, IKUO

Art Unit

1649

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to July 13, 2007.
2. ☒ The allowed claim(s) is/are 1,2,4-8,13,20-22,27-30,35-38,43 and 45.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.


Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


OLGA N. CHERNYSHEV, PH.D.
PRIMARY EXAMINER

Amendments To The Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (Previously presented) An isolated polypeptide that suppresses neuronal death associated with Alzheimer's disease having an amino acid sequence of Formula (I):

Pro-X_{N1}-(Cys/bXaa)-(Leu/Arg)-X_{N2}-Leu-Thr-(Gly/Ser)-X_{N3}-Pro (I) (SEQ ID NO: 63)

wherein "Cys/bXaa" indicates Cys or a basic amino acid; "(Leu/Arg)" indicates Leu or Arg; "(Gly/Ser)" indicates Gly or Ser; and X_{N1}, X_{N2}, and X_{N3} independently indicate arbitrary amino acid sequences not more than 10 residues in length, respectively.

2. (Previously presented) An isolated polypeptide selected from the group consisting of:

(a) a polypeptide having an amino acid sequence selected from the group consisting of SEQ ID NOs: 5 to 8, 10, 12, 13, 21 to 24, 26 to 29, 32, 33, 37 to 40, 46, 48, 54, and 60 and

(b) a polypeptide that suppresses neuronal death associated with Alzheimer's disease having an amino acid sequence which differs from a polypeptide of SEQ ID NOs: 5 to 8, 10, 12, 13, 21 to 24, 26 to 29, 32, 33, 37 to 40, 46, 48, 54, and 60, in such a way that one amino acid has been substituted, deleted, inserted, or added.

3. (Canceled)

~~3~~ 4. (Previously presented) A fusion polypeptide comprising the polypeptide of any of claims 1 to 2 fused with one or more other polypeptides.

4 ~~5~~ (Previously presented) An isolated DNA encoding a polypeptide selected from the group consisting of:

(a) a polypeptide that suppresses neuronal death associated with Alzheimer's disease having the amino acid sequence of Formula (I):

Pro-X_{N1}-(Cys/bXaa)-(Leu/Arg)-X_{N2}-Leu-Thr-(Gly/Ser)-X_{N3}-Pro (I) (SEQ ID NO: 63)

wherein "Cys/bXaa" indicates Cys or a basic amino acid; "(Leu/Arg)" indicates Leu or Arg; "(Gly/Ser)" indicates Gly or Ser; and X_{N1}, X_{N2}, and X_{N3} independently indicate arbitrary amino acid sequences not more than 10 residues in length, respectively;

(b) a polypeptide comprising an amino acid sequence which differs from a polypeptide of SEQ ID NOs: 5 to 8, 10, 12, 13, 21 to 24, 26 to 29, 32, 33, 37 to 40, 46, 48, 54, and 60 in such a way that one amino acid has been substituted, deleted, inserted, or added, wherein the polypeptide suppresses neuronal death associated with Alzheimer's disease;

(c) a polypeptide comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 5 to 8, 10, 12, 13, 21 to 24, 26 to 29, 32, 33, 37 to 40, 46, 48, 54, and 60; and

(d) a fusion polypeptide comprising the polypeptide of (a) or (c) fused with one or more other polypeptides;

wherein the DNA does not comprise the sequence of SEQ ID NO:4.

5 ~~6~~ (Previously presented) A vector into which a DNA encoding a polypeptide of any one of (a) to (c) is inserted:

(a) a polypeptide that suppresses neuronal death associated with Alzheimer's disease having the amino acid sequence of Formula (I):

Pro-X_{N1}-(Cys/bXaa)-(Leu/Arg)-X_{N2}-Leu-Thr-(Gly/Ser)-X_{N3}-Pro (I) (SEQ ID NO: 63)

wherein "Cys/bXaa" indicates Cys or a basic amino acid; "(Leu/Arg)" indicates Leu or Arg; "(Gly/Ser)" indicates Gly or Ser; and X_{N1}, X_{N2}, and X_{N3} independently indicate arbitrary amino acid sequences not more than 10 residues in length, respectively;

(b) a polypeptide comprising an amino acid sequence which differs from a polypeptide of SEQ ID NOs: 5 to 8, 10, 12, 13, 21 to 24, 26 to 29, 32, 33, 37 to 40, 46, 48, 54, and 60 in such a way that one amino acid has been substituted, deleted, inserted, or added, wherein the polypeptide suppresses neuronal death associated with Alzheimer's disease;

(c) a polypeptide comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 5 to 8, 10, 12, 13, 21 to 24, 26 to 29, 32, 33, 37 to 40, 46, 48, 54, and 60; and

(d) a fusion polypeptide comprising the polypeptide of (a) or (b) fused with one or more other polypeptides.

6 ~~7~~ (Original) A host cell retaining the vector of claim ⁵ ~~6~~.

~~7~~ ~~8~~ (Previously presented) A method for producing the polypeptide of any one of claims 1 to 2 or a fusion polypeptide comprising the polypeptide of any one of claims 1 to 2, comprising:

culturing a host cell retaining a vector into which a DNA encoding the polypeptide of any one of claims 1 to 2, or a fusion polypeptide comprising the polypeptide of any one of claims 1 to 2 fused with one or more other polypeptides, is inserted; and recovering an expressed polypeptide from the host cell or culture supernatant thereof.

9-12. (Canceled)

~~8~~ ~~13~~ (Previously presented) A pharmaceutical composition comprising the polypeptide of any one of claims 1 to 2.

14-16. (Canceled)

17-19. (Canceled)

9 ~~20~~ (Previously presented) The polypeptide of claim 1, wherein X_{n1} is an amino acid sequence consisting of 3 to 5 arbitrary amino acids, X_{n2} is an amino acid sequence consisting of 1 to 3 arbitrary amino acids, and X_{n3} is an amino acid sequence consisting of 3 to 5 arbitrary amino acids.

10 ~~21~~ (Previously presented) The polypeptide of claim 1, wherein the polypeptide comprises an amino acid sequence of SEQ ID NO: 101.

11 ~~22~~ (Previously presented) The polypeptide of claim 1, wherein the polypeptide comprises an amino acid sequence of SEQ ID NO: 102.

23-26. (Canceled)

12 ~~27~~ (Previously presented) The polypeptide of claim 2, wherein the polypeptide comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 5 to 8, 10, 12, 13, 21 to 24, 26 to 29, 32, 33, 37 to 40, 46, 48, 54, and 60.

13 ~~28~~ (Previously presented) The DNA of claim ⁴~~5~~, wherein X_{n1} is an amino acid sequence consisting of 3 to 5 arbitrary amino acids, X_{n2} is an amino acid sequence consisting of 1 to 3 arbitrary amino acids, and X_{n3} is an amino acid sequence consisting of 3 to 5 arbitrary amino acids.

14 ~~29~~ (Previously presented) The DNA of claim ⁴~~5~~, wherein the DNA encodes a polypeptide comprising an amino acid sequence of SEQ ID NO: 101.

15 ~~30~~ (Previously presented) The DNA of claim ⁴~~5~~, wherein the DNA encodes a polypeptide comprising an amino acid sequence of SEQ ID NO: 102.

31-34. (Canceled)

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16 35. (Previously presented) The DNA of claim ~~5~~, wherein the DNA encodes a polypeptide comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 6 to 8, 10, 24, 26 to 29, 32, 33, 37 to 40, 46, 48, 54, and 60.

⁵
17 36. (Previously presented) The vector of claim ~~6~~, wherein X_{n1} is an amino acid sequence consisting of 3 to 5 arbitrary amino acids, X_{n2} is an amino acid sequence consisting of 1 to 3 arbitrary amino acids, and X_{n3} is an amino acid sequence consisting of 3 to 5 arbitrary amino acids.

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18 37. (Previously presented) The vector of claim ~~6~~, wherein the DNA encodes a polypeptide comprising an amino acid sequence of SEQ ID NO: 101.

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19 38. (Previously presented) The vector of claim ~~6~~, wherein the DNA encodes a polypeptide comprising an amino acid sequence of SEQ ID NO: 102.

39-42. (Canceled)

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20 43. (Previously presented) The vector of claim ~~6~~, wherein the DNA encodes a polypeptide comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 5 to 8, 10, 12, 13, 21 to 24, 26 to 29, 32, 33, 37 to 40, 46, 48, 54, and 60.

44. (Canceled)

²¹
45. (Previously presented) A composition comprising a polypeptide of claim 2, and a carrier.

46-49. (Canceled)